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In Kutupalong, the world's largest refugee camp, work opportunities are scarce. One entrepreneur hopes to change that. // Courtesy of James Song

Hire a Refugee (and Pay in Cryptocurrency). What Could Go Wrong?

SARAH HOLDER FEB 20, 2018

Since Mohammad Shafi was five years old, he's ricocheted in and out of Bangladeshi refugee camps. A Rohingya Muslim, Shafi fled his home country of Myanmar with his family in 1992, landing first at the Balukhali camp, then the Nayapara camp in 1994, then the Kutupalong camp in 2009. Brief hopes for resettlement in New Zealand came and went in 2010, after a criminal case involving his brother got complicated. Instead, he moved again.

Now Shafi is 31 and back in the unofficial Kutupalong Rohingya Refugee Camp, along with hundreds of thousands of Rohingya refugees who have fled Myanmar since 2015, when a new policy of ethnic cleansing at the hands of the Burmese military began. Shafi met his wife in the camp. They now have two children, Shahan and Rihan; Kutupalong is the only home they know.

But Shafi has applied repeatedly for resettlement in Australia, where he hopes they'll find a new, more permanent one. "I always like to call home a place in which I can be free there, like other citizens living in other countries," said Shafi. "With safety and dignity." He wants his boys to get a good education.

Most important, he told me, "I want to work."

Shafi is skilled at English, Rohingya dialects, and Bangladeshi—at Kutupalong, he has assisted journalists and aid workers as a translator and interpreter. But he's not allowed to leave the camp to look for work in downtown Cox's Bazar, the nearest city, and neither is his wife. Each month, Shafi's family gets a stipend of \$80, loaded onto an ATM card by the Bangladeshi government. "It is not enough for the four of us," he says.

Resettlement, as Shafi sees it, would be the key to a steady income. But for many refugees, finding a job overseas is just as hard as getting one in the camp.

Of course, developing a full and stable life is about so much more than finding stable employment. Thanks to some clever use of new technology, entrepreneurs hope to digitally streamline this specific, perhaps more manageable element of a human crisis. For the past eight months, Shafi has been working with James Song, a private equity investor turned tech activist, on one such novel solution: an app called ExsulCoin. ExsulCoin's ICO, or initial coin offering (that's crypto-speak for "launch"), began on February 12.

The platform will use blockchain technology to deliver online language and job training to refugees, who will then be matched with jobs within camps, or remotely, or in host countries. Those who use the system will be paid (and graded) not in conventional funds but in a special cryptocurrency—ExsulCoin—that can then be converted into cash.

As Song envisions it, using ExsulCoin will be kind of like simultaneously earning an online degree and becoming a TaskRabbit—that's the gig-economy service that matches people who need things done with people willing to do them. Rabbits will stand in Apple Store lines for you, organize your closet, or copyedit your resume; in Song's model, you'd be able to hire these freelance gig-seekers directly from a vast and heretofore untapped labor pool: the global refugee population.

ExsulCoin joins a new landscape of refugee aid technology that has emerged to help mitigate the suffering—and sometimes, extract profits—from the record 65.6 million displaced persons that are currently struggling to find permanent homes and livelihoods. There are already apps to find lost love ones; platforms to store secure identification data; drones to deliver meds; algorithms to optimize resettlement patterns. But along with these digital developments comes the need for a new framework to evaluate them—to ensure that the needs technologies are meeting are those of refugees, not of funders.

A Rohingya child in Kutupalong. (Courtesy of James Song)

"As we look at implementing technology into our programs, the very first thing we think about is that we don't lead with the technology—that there's programmatic objectives technology can help to enable, not the other way around," said Stephen Hellen, director of Information and Communication Technologies for Development (ICT4D) with Catholic Relief Services. "It's not uncommon to see initiatives surface that get that order backwards."

Last year, representatives from multilateral organizations, institutional donors and NGOs (including UNICEF, Catholic Relief Services, USAID, and WHO) came together to endorse the Principles for Digital Development, which begin to outline such a framework. The nine key principles exhort technologists to design with the user in mind, understand the existing ecosystem, and be aware of privacy and security concerns, among other things.

"The digital principles really resonate with aid and development practitioners because they frankly have nothing to do with technology," said Hellen. "They're about thinking about the recipient first and their privacy and security first. It really helps rein in some of the ambition."

ExsulCoin is nothing if not ambitious, aiming to create an entirely new labor market made up of refugees. But is it a tool for liberation or exploitation?

Like other tech founders, James Song's path to advocacy entrepreneurship was circuitous—driven, it seems, by tightly woven motivations in turn moral and financial. Song studied neuroscience in London and then completed a Fulbright in Uganda, where he pioneered HIV interventions and developed a national recycling system, according to his LinkedIn bio. After returning to the U.S., he founded Faircap Partners, a private equity firm that encouraged investment in Myanmar. There, Song hoped to create the "next China"—to transform a struggling economy into a global financial center, and be one of the first to reap the benefits.

"We view Myanmar as a blank canvas," Faircap's website stated. "When it rains gold, we want to be outside with our buckets, and partnering with visionary leaders and their companies is how we make our buckets larger while making the rain come down harder."

But the venture failed—Song blames crony capitalism in Myanmar. And no matter how much his clients invested, businesses just weren't coming in. What was missing was the education infrastructure to empower people within the country to build business themselves, he says.

So Song started working on technological methods to shorten the amount of education time it takes to "make someone really useful to a company," he says. "Then, I wanted to test that technology. I thought, what would be a control group that has zero education? So we started working with refugees."

The global refugee crisis has reached severe proportions among Syrian, Iraqi, and Egyptian populations. But none have experienced as rapid a recent displacement as the Rohingya. Since late August, upwards of 655,000 Rohingya have been driven from Song's old investment target of Myanmar into Bangladesh, propelling the total count of Rohingya refugees to more than 800,000. The Kutupalong Rohingya camp, where Shafi's family lives, houses almost all of them, and conditions there reflect the enormous challenges involved in connecting this city of the displaced to the world outside.

"People can't go outside of the camp to find jobs or do labor work—the [Bangladeshi] army and police have blocked everywhere," said Shafi.

So, in search of the perfect "control group," Song headed to Kutupalong. He began by launching a project called Exsulbeads, working with translators like Shafi to teach women in Kutupalong to make jade bracelets and sell them. "It's a great initiative... for the most persecuted Rohingya, especially for women," said Shafi. Women find it especially hard to work outside the house—in traditional Rohingya culture, women aren't meant to be seen in public without a full body covering.

To create a more sustainable job market, however, Song also wanted to equip refugees with education—something camps often lack. In Kutupalong, schooling is only provided up to the eighth grade. The answer he came up with is ExsulCoin.

ExsulCoin's educational objectives are inherently different than that of a traditional school.

Via audio and video lessons developed with native Rohingya speakers now settled in North America, the curriculum prioritizes teaching English, to prepare refugees to work in an international job market. But it will also include lessons meant to preserve Rohingya culture, like folk songs and fables, since kids who grow up in camps hear Bengali, Burmese, and English more than their native tongue. "We suspect there's a risk of an entire language dying out because of a lack of any real structured education," said Song. "We're in a race against time to try to preserve as much of it as we can."

Though instruction is remote, students will be held accountable for paying attention: The application uses the phone camera to track eye gaze and a gyroscope to track when students pick up phones and put them down. In-app notifications keep students motivated. In this way, says Song, "we can hack engagement."

The problem, refugee experts say, is that streamlining education like this can have unintended consequences. "There is a human element that at least in our organization is so incredibly critical in these kinds of situations, where you're trying to help people when they're at their most vulnerable, and completely dislocated from support networks," said Annemarie Reilly, chief of staff at Catholic Relief Services. "When we approach things like education, it's about creating a safe space and bringing people together." While skill-building and language learning are important, they're almost secondary to the psychosocial value of schooling.

Humanitarian groups don't avoid online education entirely, of course. In 2008, CRS launched Project ABC, an adult literacy app, in Niger. Participating villagers increased their test scores by 10 percent to 26 percent, said CRS' Hellen, attaining a higher level of literacy than those who participated in other literacy programs. Now, they are developing a project called "Girls Rock," also in Niger, which will reach 1,500 adolescent girls using an approach called "Alphabet by Cell Phone"; and "Mine Risk Education Plus" for Vietnamese children, which will teach children to avoid unexploded landmines using a gaming app.

Some Rohingya children do go to school in Kutupalong, but only until grade 8. (Courtesy of James Song)

ExsulCoin's objectives are inherently different than that of a traditional school, however, or even that of other organization's initiatives.

When a student completes a course, instead of getting an A or B grade, they get an A or B token—a fraction of the platform's bespoke cryptocurrency, which can eventually be converted into cash. And once a refugee develops an expertise in something (or proves they already have it), they're able to join a nano-working platform, which matches them with people around the world who will pay for their service.

Technically, anyone who enters the Exsulcoin system can perform nanotasks, but the system is biased towards supporting refugees. While non-refugees have to buy tokens (for about one U.S. dollar), to participate, refugees gain automatic entrance upon "graduation."

“The refugee crisis is incredibly unpopular with a lot of governments. When you decentralize things, you don’t have to worry about popularity anymore.”

CRS actually piloted a similar program in 2016, facilitating job development for Syrian refugees in Egypt. “There, we introduced an application that helped skilled refugees set up and create business plans so they could launch individual enterprises or set up entrepreneurship,” said Hellen. Whereas Rohingya movement in and out of Kutupalong is strictly controlled, however, the Syrians CRS worked with were in the heart of a city, able to build companies from the ground up.

“We’ve certainly seen success with that, but it’s contextual,” said Hellen. “In that situation they were in a thriving urban setting—they had all sorts of opportunities that don’t exist in the camp setting.”

Song envisions ExsulCoin facilitating more freelance-style work opportunities, both within refugee camps and beyond. “For a lot of aid, it’s not necessary to have an agency deploy it,” said Song.

Many of the refugees already have specialized skills: They’re farmers, or seamstresses, or doctors. “War or disaster doesn’t discriminate between professions,” said Song. If a doctor takes a skills assessment through Exsulcoin and demonstrates his medical knowledge, he’s suddenly able to practice again—remotely, or in person. Let’s say someone living in New York spots a suspicious growth on their skin; instead of going to a dermatologist on Park Avenue, Song said, that person could employ three remote refugee doctors to get a diagnosis, cheaply and quickly.

Rohingya women Minara, Hafsa, and Morjham. (Courtesy of James Song)

An eye-gaze-tracking cryptocurrency-powered app aimed at tapping the labor of some of the world's most vulnerable people might seem more like the opening of "Black Mirror" season four than a tool for foreign aid. (And, well, what doesn't in 2018?) There are also echoes here of the quasi-indentured servitude proposed in "What If You Could Get Your Own Immigrant?" a polarizing op-ed that Politico recently published, to much criticism.

But Song sees this service as a uniquely sustainable means of funding refugee self-sufficiency. "The refugee crisis is a crisis around the world, but it's also incredibly unpopular, especially with a lot of governments," he said. "When you decentralize things, you don't have to worry about popularity anymore."

Even if only one percent of the population supports refugees, he says, that one percent can connect with them directly. "They can work within their own ecosystem."

Blockchain and crypto may be all the rage in the States, but they add yet another layer of confusion amidst the upheaval of Kutupalong—when I asked Shafi how he'd use cryptocurrency, he said he didn't know where to start. Song believes cryptocurrency can be easily implemented in Kutupalong, however, if not easily explained.

Many other humanitarian organizations have already begun transitioning to electronic voucher-based funding, says Hellen. "Often we're working in contexts where there's not a functioning financial system," he said. "That often means setting up a closed-loop financial system, which might mean giving electronic vouchers so that participants can purchase specific baskets of goods, or giving them cash on a prepaid card." Starting in 2015, CRS and USAID have given refugees who fled from the Boko Haram to Nigeria thousands of these red cards, loaded with money for supplies and food.

And this summer, the United Nations was the first major organization to cross the cryptocurrency threshold, sending Ethereum-loaded cards to 10,000 Syrian refugees. Several shops within a refugee camp in Jordan were outfitted with the technology to redeem them.

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Unless huge infrastructural interventions like this continue, using cryptocurrency to buy real goods isn't simple. That's why the digital development principles urge entrepreneurs to "[e]nsure your initiative aligns with existing technological, legal and regulatory policies."

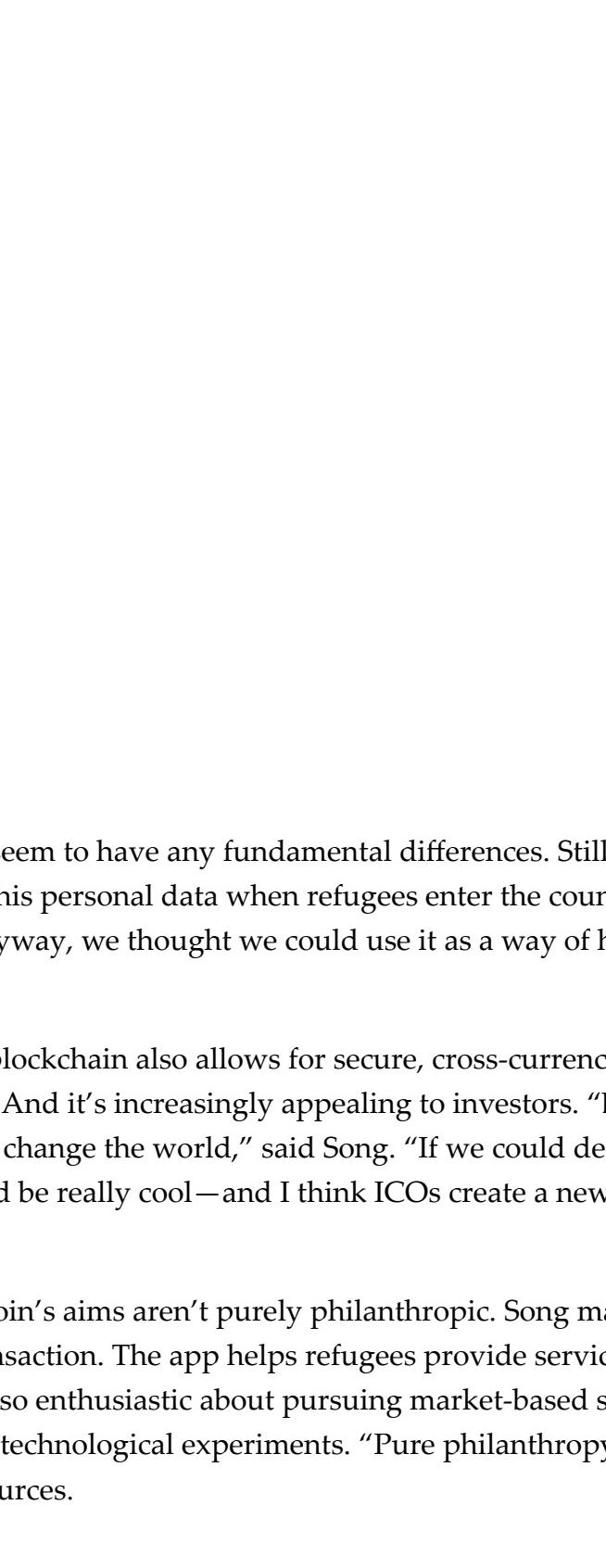
Many refugees already have smartphones—Song estimates one out of eight, and Hellen says Rohingya camps have more phone penetration than others—but for those who don't, he'll provide some. To convert ExsulCoins into local currency, each user will be given a debit card and an I.D., linked to refugees' biometric information.

"They're going to collect that biometric data anyway. We thought we could use it as a way of helping them, not surveilling them all the time."

Therein lies the promise and peril of blockchain. "The promise being that it's immutable, and the peril being that it's immutable," said Hellen. Blockchain preserves that information forever, in a publicly accessible database. "Individuals that may want to ultimately purge that identity or those transactions"—like refugees who are fleeing countries for fear of persecution—are unable to.

Earlier this year, a similarly blockchain-backed grassroots initiative called the [Rohingya Project](#) was launched, to widespread disdain. It was meant to help Rohingya prove their identities using digital ID cards, and use that identity to crowdfund resources.

"How could linking a highly persecuted people's biometric information, such as fingerprints, iris scans, and photographs, to a public, universal, and immutable distributed ledger be a good thing?" asked [one author](#) from ICTWorks, an organization that evaluates development-oriented technology projects. "Might it be highly irresponsible to digitize all that information? Couldn't that data be used by nefarious actors to perpetuate new and worse exploitation of Rohingya?"



(Courtesy of James Song)

ExsulCoin's model does not seem to have any fundamental differences. Still, Song insists that Bangladesh already collects this personal data when refugees enter the country. "If they're going to collect that biometric data anyway, we thought we could use it as a way of helping them, not surveilling them all the time," he said.

Because of its immutability, blockchain also allows for secure, cross-currency money transfers, reduces trolling, and stores contracts. And it's increasingly appealing to investors. "Blockchain has an inherent promise that it's supposed to change the world," said Song. "If we could deliver free basic education to everyone on earth, that would be really cool—and I think ICOs create a new type of funding in which it might be possible."

Ultimately, however, ExsulCoin's aims aren't purely philanthropic. Song makes it clear that the business takes one percent of each transaction. The app helps refugees provide services—it's not a charity. Humanitarian agencies are also enthusiastic about pursuing market-based solutions, says CRS's Reilly, and implementing their own technological experiments. "Pure philanthropy" is less important than providing much-needed resources.

But in a camp like Kutupalong, sometimes finding a job is less important than getting out. It's the biggest camp in the world, with 800,000 people living in close quarters. That's not sustainable, even if self-contained labor markets are able to flourish. "How much are you investing in trying to get people jobs in the short term when there are other immediate needs, and there's an effort to get people back as a priority?" said Reilly. "It kind of shifts how you think about things."

ExsulCoin's February 12 ICO launch marked the beginning of a fundraising process, and sign-up site visits in Bangladesh begin now, too. According to their public timeline, the ExsulCoin team will travel to six more Asian sites starting in April, and plan trips to Libya and Lebanon by July. Eventually, Song wants to build a physical presence in "every refugee camp in the world."

Shafi says that his ultimate dream is still Australia, or the U.K., or the U.S.—anywhere but Kutupalong. Getting there, and getting employed, is much more complicated than downloading an app.

But he tells me that when ExsulCoin finally launches, he'll be eager to enroll his kids, and get them learning. And working.

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